

Exhibit C

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Curriculum Vitae of
SANJEEVA PRSAD KALVA, MD, FSIR

CURRICULUM VITAE
Sanjeeva Prasad Kalva, MD, FSIR

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EDUCATION

<u>Year</u>	<u>Degree</u>	<u>Field of Study</u>	<u>Institution</u>
1993	MB, BS	Medicine	Kurnool Medical College, Vijayawada University of Health Sciences, Kurnool, India

POSTDOCTORAL TRAINING

<u>Year(s)</u>	<u>Training</u>	<u>Specialty/Discipline</u>	<u>Institution</u>
1994-1995	Internship		Government General Hospital, Kurnool, India
1996-1998	Residency	Radiology	Nizam's Institute of Medical Sciences, Hyderabad, India
1999-2000	Fellowship	Vascular & Interventional Radiology	Kovai Medical Center & Hospital, Coimbatore, India
2003-2004	Fellowship	Abdominal Imaging & Intervention	Massachusetts General Hospital, Boston, MA
2004-2006	Fellowship	Vascular & Interventional Radiology	Massachusetts General Hospital, Boston, MA

FACULTY ACADEMIC APPOINTMENTS

<u>Year(s)</u>	<u>Academic Title</u>	<u>Academic Department</u>	<u>Academic Institution</u>
1999-1999	Other	Radiology	Nizam's Institute of Medical Sciences, Hyderabad, India
1999-2000	Clinical Fellow	Vascular & Interventional Radiology	Other Academic Institution
2000-2003	Other	Radiology	Other Academic Institution
2003-2004	Research Fellow	Radiology	Harvard Medical School, Boston MA
2004-2006	Clinical Fellow	Radiology	Harvard Medical School, Boston MA
2006-2008	Instructor	Radiology	Harvard Medical School, Boston MA
2008-2012	Assistant Professor	Radiology	Harvard Medical School, Boston MA
2012-2013	Associate Professor	Radiology	Harvard Medical School, Boston MA
2013-now	Associate Professor	Radiology	University of Texas Southwestern Medical School, Dallas, TX

HONORS AND AWARDS

<u>Year</u>	<u>Name of Award</u>	<u>Awarding Organization</u>
1990	Gold Medal in Pre-clinical Sciences	Kurnool Medical College, India - Highest honor for best score in the evaluations and examination.
1990	Gold Medal in Biochemistry	Kurnool Medical College, India - Highest honor for best score in the evaluations and examination.
1992	Gold Medal in Ophthalmology	Kurnool Medical College, India - Highest honor for best score in the evaluations and examination.

1993	Gold Medal in Medicine	Kurnool Medical College, India - Highest honor for best score in the evaluations and examination.
1998	REF Scholar Award	Radiology Education Foundation, India - Highest honor for best score at REF conducted quiz
1999	Certificate of Merit	Radiological Society of North America - Educational Exhibit: Cerebral and Craniofacial Aspergillosis: Computed Tomography and Pathological Correlation
2003	Certificate of Merit with Excellence in Design	Radiological Society of North America - Educational Exhibit: Imaging of Rectal Cancer: Helping to Select Among Therapeutic Options
2004	Gold Medal in Radiology	National Board of Examinations, India - Highest honor for best score in the evaluations and examination
2005	Cum Laude Award	Society of Computed Body Tomography and Magnetic Resonance For an outstanding Scientific Paper on Anti-angiogenic Therapy of Rectal Cancer: Monitoring Treatment Responses w/ Perfusion CT in Comparison to Tumor Interstitial Pressure & Micro-vessel Density
2005	Certificate of Merit	Radiological Society of North America - Educational Exhibit: CT and MR Imaging of the Thoracic Aorta
2005	Certificate of Merit	Radiological Society of North America - Educational Exhibit: Indirect CT Venography
2005	Cum Laude Award	Radiological Society of North America - Educational Exhibit: Inferior Pacreatico-duodenal Artery Aneurysms Associated with Celiac Axis Stenosis or Occlusion: Spectrum of Imaging Findings
2007	Cum Laude Award	Society of Computed Body Tomography and Magnetic Resonance - For an outstanding Scientific Paper on CT Venography During CT Pulmonary Angiography: Should the Pelvis be Imaged?
2007	Housefield Award	Society of Computed Body Tomography and Magnetic Resonance - For an outstanding Scientific Paper on Perfusion CT for Monitoring Treatment Response of Rectal Carcinoma: Can Change in Perfusion Parameters Predict Clinical Response?
2008	Cum Laude Award	Cardiovascular and Interventional Radiological Society of Europe - Educational Exhibit
2008	Certificate of Merit	Radiological Society of North America - Educational Exhibit: Techniques and Pearls for Crossing Challenging Atherosclerotic Chronic Total Occlusions (CTOs)
2008	Certificate of Merit	Radiological Society of North America - Educational Exhibit: The Pathophysiology, Natural History and Endovascular Treatment of Popliteal Artery Aneurysms
2009	Cum Laude Award	Cardiovascular and Interventional Radiological Society of Europe - Educational Exhibit
2010	Certificate of Merit	Radiological Society of North America - Educational Exhibit: Spectrum of Portal Venous Interventions
2011	Best Educational Exhibit	Society of Interventional Radiology - Educational Exhibit: Mgmt of high-output steal syndrome assoc w/ hemodialysis arteriovenous fistulas or grafts using minimally invasive limited ligation endoluminal assisted revision (MILLER) procedure
2011	Cum Laude Award	Radiological Society of North America - Educational Exhibit: Venous hypertension and the role of proteomics in the evaluation of varicose veins.
2012	Fellow	Society of Interventional Radiology - Fellowship of Society of Interventional Radiology is awarded to individuals who have contributed significantly to the development of interventional radiology in terms of research, education and society activities

2012	Dr. Athanasoulis Award for Excellence in Teaching	Massachusetts General Hospital - Teacher of the year award by the fellows of Vascular Interventional Radiology Division
2013	Certificate of Merit	Radiological Society of North America - Diagnosis and endovascular management of high flow peripheral arteriovenous malformations
2013	Outstanding Performance Award	Massachusetts General Hospital - Given by the Department of Radiology for an outstanding performance as a leader, high quality of patient care and excellence in teaching and education
2014	Best Educational Exhibit	Society of Interventional Radiology - Educational Exhibit: Lessons learned from a Quality improvement project to enhance retrieval rates of IVC filters
2014	Certificate of Merit	GEST: Global Embolization Symposium and Technologies - Scientific Exhibit: Retrospective analysis of traditional chemoembolization compared to drug-eluting beads chemoembolization for hepatocellular carcinoma
2014	Certificate of Merit	Radiological Society of North America - Educational Exhibit: Chronic Mesenteric Ischemia
2014	Certificate of Merit	Society of Interventional Radiology - Educational Exhibit: Ureteral arterial fistula: Diagnosis and Management
2014	Magna Cum Laude	Radiological Society of North America - Educational Exhibit: Vascular Complications of Pancreaticoduodenectomy
2015	Outstanding Service Award	Cardiovascular and Interventional Radiological Society of Europe - Most cited publication of CVIR in 2014
2015	SIR Poster Award	Society of Interventional Radiology - Scientific Research Presentation: Interventional radiologist billing practices to Medicare: Procedures performed an geographic variation
2015	Certificate of Merit	Radiological Society of North America - Educational Exhibit: Variceal embolization: A resident's guide to the many options for treating varices secondary to portal hypertension
2015	Certificate of Merit	Radiological Society of North America - Educational Exhibit: Vascular complications following liver transplantation: Diagnosis and Intervention

APPOINTMENTS AT HOSPITALS AND AFFILIATED INSTITUTIONS

<u>Year(s)</u>	<u>Hospital Position</u>	<u>Hospital Dept/Division</u>	<u>Hospital Institution</u>
1999-1999	Registrar (Senior Resident)	Radiology	Nizam's Institute of Medical Science, Hyderabad, India
2000-2003	Consultant	Radiology	Kovai Medical Center & Hospital, Coimbaore, India
2006-2013	Assistant Radiologist	Radiology	Massachusetts General Hospital, Boston, MA
2013-2014	Attending Physician	Radiology	St. Paul University Hospital, Dallas, TX
2013-now	Attending Physician	Radiology	Zale Lipshy Hospital, Dallas, TX
2013-now	Attending Physician	Radiology	Parkland Memorial Hospital, Dallas, TX
2013-now	Chief	Interventional Radiology	UT Southwestern Medical Center, Dallas, TX
2014-now	Attending Physician	Radiology	UT Southwestern William P. Clements Jr. University Hospital

MAJOR ADMINISTRATIVE AND LEADERSHIP POSITIONS

<u>Year(s)</u>	<u>Position Title</u>	<u>Institution</u>	<u>Scope</u>
2006-2009	Assistant Program Director, Vascular & Interventional Radiology	Massachusetts General Hospital, Boston, MA	Hospital
2007-2011	Course Director, Vascular & Interventional Radiology Mini-Course for Residents	Massachusetts General Hospital, Boston, MA	Hospital

2009-2013	Associate Clinical Director, Division of Vascular Imaging & Intervention, Department of Imaging	Massachusetts General Hospital, Boston, MA	Hospital
2011-2013	Director, Center for Image-Guided Cancer Therapy	Massachusetts General Hospital, Boston, MA	Hospital
2011-2013	Associate Division Head, Division of Vascular Imaging & Intervention, Department of Imaging	Massachusetts General Hospital, Boston, MA	Hospital
2013-now	Chief, Vascular Interventional Radiology	UT Southwestern Medical Center, Dallas, TX	Departmental

COMMITTEE SERVICE**Departmental**

<u>Year(s)</u>	<u>Position Title</u>	<u>Name of Committee</u>	<u>Institution/Organization</u>
2013-2015	Member	IVC Filter Working Group	University of Texas Southwestern Medical Center

Institution

<u>Year(s)</u>	<u>Position Title</u>	<u>Name of Committee</u>	<u>Institution/Organization</u>
2006-2009	Member: Support department endeavors on education and evaluation of residents	Resident Education & Evaluation Committee	Massachusetts General Hospital, Boston, MA 02114
2013-2014	Member	Committee for drafting Time-Off policy for Radiology Faculty	University of Texas Southwestern Medical Center
2013-2014	Member	Vascular Credentialing Committee	University of Texas Southwestern Medical Center
2013-2014	Member	Committee for implementation of changes to Xcelera Software for Radiology and Cardiology	University of Texas Southwestern Medical Center
2014-2015	Member	CTA Protocols Review	University of Texas Southwestern Medical Center
2014-2015	Member	Radiology Residency Program Evaluation Committee	University of Texas Southwestern Medical Center
2014-2015	Member	Clinical Advisory Board Member HIFU Research Program	University of Texas Southwestern Medical Center
2014-2015	Member	Medical Student Recruitment Committee for UT Southwestern Medical School	University of Texas Southwestern Medical Center
2014-2015	Member	Radiology Recruitment Committee for Radiology Residency	University of Texas Southwestern Medical Center
2014-2016	Member	Vascular Interventional Radiology Fellowship Curriculum Core Committee	University of Texas Southwestern Medical Center
2014-now	Member	Vascular Interventional Radiology Fellowship Evaluation Committee	University of Texas Southwestern Medical Center
2015-now	Member	Image Guided Procedures Workgroup	University of Texas Southwestern Medical Center
2016-now	Member	EVU Project Workgroup	University of Texas Southwestern Medical Center
-now	Member	Clinical Advisory Board Member HIFU Research Program	University of Texas Southwestern Medical Center
-now	Member	Radiology Residency Program	University of Texas Southwestern Medical Center

National

<u>Year(s)</u>	<u>Position Title</u>	<u>Name of Committee</u>	<u>Institution/Organization</u>
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2008-2009	President	Planning and conduct of CME-accredited courses for New England Society of Interventional Radiology	New England Society of Interventional Radiology
2008-2012	Board Member	Scientific Program Committee: Review and grade scientific abstracts on Vascular Interventional Radiology every year for RSNA	Radiological Society of North America
2008-2013	Member	Scientific Program Committee	Radiological Society of North America
2008-2013	Member	Planning and conduct of CME accredited courses for New England Society of Interventional Radiology	Society of Interventional Radiology
2008-2013	Board Member	Organize monthly regional meetings of New England Society of Interventional Radiology	New England Society of Interventional Radiology
2009-2012	Secretary	Planning and conduct of CME-accredited courses for New England Society of Interventional Radiology	New England Society of Interventional Radiology
2010-now	Member	Appropriateness Committee on Vascular Imaging; Review and critically appraise revisions and new documents on Appropriateness criteria for vascular imaging. Author new document on Aortic Trauma	American College of Radiology
2011-now	Member	Scientific Program Committee	American College of Cardiology
2012-2016	Member	Standards of Practice Committee	Society of Interventional Radiology
2014-2017	Member	International Affairs Committee	Society of Interventional Radiology
2014-2017	Member	IR Registries Committee	Society of Interventional Radiology
2014-now	Member	Radiographic Review Committee	Radiological Society of North America
2014-now	Chair	Vascular Imaging Panel	American College of Radiology
2014-now	Chair	Practice Guidelines on Transjugular Intrahepatic Portosystemic Shunts	American College of Radiology
2014-now	Member	ACR Interventional Committee	American College of Radiology
2014-now	Chair	Practice guidelines on Transjugular Intrahepatic Portosystemic Shunts	American College of Radiology
2014-now	Chair	Vascular Imaging Panel	American College of Radiology
2015-now	Member	IR-DR Residency Exam Committee	American Board of Radiology
2015-now	Member	Executive Council	Society of Interventional Radiology
2015-now	Member	Outcomes Registries Committee	Society of Interventional Radiology
2015-now	Member	IR-DR Residency Exam Committee	American Board of Radiology
2015-now	Member	Executive Council	Society of Interventional Radiology
2015-now	Member	Outcomes Registries Committee Member	Society of Interventional Radiology
2016-2018	Member	Performance and Quality Outcomes Division	Society of Interventional Radiology
2016-2019	Member	Executive Council and Foundation Board	Society of Interventional Radiology
2016-2019	Member	Finance Committee	Society of Interventional Radiology
2016-now	Member	Membership Development Committee	Society of Interventional Radiology

International

<u>Year(s)</u>	<u>Position Title</u>	<u>Name of Committee</u>	<u>Institution/Organization</u>
2007-now	Member	Standards of Practice Committee: Revised SOP documents on Inferior vena cava filters, informed consent, and Endovenous laser ablation. Review, critically appraise and comment on 75% of the SOP documents within a calendar year.	Society of Interventional Radiology

2013-now	Member	International Meetings Committee	World Congress of Interventional Radiology
2017-2020	Member	International Affairs Committee	Society of Interventional Radiology

PROFESSIONAL SOCIETIES

<u>Year(s)</u>	<u>Society Name</u>
2006-2014	American College of Radiology
2006-now	American Medical Association
2006-now	Radiological Society of North America
2006-now	American Roentgen Ray Society
2006-now	Society of Interventional Radiology
2006-now	American College of Radiology
2007-now	New England Society of Interventional Radiology, Member
2008-2009	New England Society of Interventional Radiology, President
2009-2012	New England Society of Interventional Radiology, Secretary
2011-now	American College of Cardiology
2014-now	Texas Radiological Society
2015-now	Cardiovascular and Interventional Radiological Society of Europe
2015-now	American College of Phlebology

GRANT REVIEW ACTIVITIES

<u>Year(s)</u>	<u>Name of Committee</u>	<u>Organization</u>
2016	The Netherlands Organization for Health Research and Development	The Netherlands Organization for Health Research and Development

EDITORIAL ACTIVITY**Reviewer (All Types)**

<u>Year(s)</u>	<u>Journal Name</u>	<u>Editorial Role</u>
	American Journal of Roentgenology	Reviewer
	Journal of Rheumatology	Reviewer
	BMC Radiation Oncology	Reviewer
	Vascular Endovascular Surgery	Reviewer
	Frontiers in Oncology	Reviewer
	Indian Heart Journal	Reviewer
	Indian Journal of Radiology and Imaging	Reviewer
	British Journal of Radiology	Reviewer
	Circulation	Reviewer
	Journal of Endovascular Therapy	Reviewer
	Seminars in Interventional Radiology, Guest Editor	Other
	Radiographics	Reviewer
	Journal of Vascular Interventional Radiology	Reviewer
	Scandinavian Journal of Gastroenterology	Reviewer
	European Radiology	Reviewer
	Journal of Clinical Gastroenterology	Reviewer
	Digestive and Liver Disease	Reviewer
	Journal of Cardiovascular Computed Tomography	Reviewer
	Journal of Computed Assisted Tomography	Reviewer
	Journal of American College of Cardiology	Reviewer
	Catheterization & Cardiovascular Interventions	Reviewer
	Academic Radiology	Reviewer
	Cardiovascular Interventional Radiology	Reviewer
	Thorax	Reviewer

INVITED LECTURES, TEACHING AND PRESENTATIONS

International

<u>Year(s)</u>	<u>Presentation Title or Course Name</u>
2006	Case reviews in Vascular Interventional Radiology / Grand rounds
2006	Transarterial therapy of liver tumors / Grand rounds
2007	Inferior Vena Cava Filters: Current Status and Future Trends / Lecture
2007	Role of inferior vena cava filters in the management of pulmonary embolism: overview and personal experience / Lecture
2009	Recent advances in trans-arterial therapy of liver malignancies / Lecture
2009	Recent advances in the management of liver tumors / Lecture
2009	Portal Hypertension: Role of interventional radiology in the diagnosis and management / Lecture
2009	Portal Hypertension: Diagnosis & Management / Lecture
2011	Management of Portal Hypertension / Lecture Dept of Transplant Surgery
2011	Transarterial therapy of liver tumors / Grand rounds
2012	Endovenous thermal ablation for varicose veins
2012	Management of Portal Hypertension / Lecture Dept of Transplant Surgery
2013	Portal vein revascularization
2013	Case: Portal vein embolization
2013	Portal vein embolization: How do I do it?
2013	Transarterial brachytherapy (Y-90): Technique and Results
2013	Workshop on Embolization
2013	Case: Y-90 Embolization
2013	Case: Portal vein revascularization
2013	Portal Vein Embolization
2014	Grand Rounds in Internal Medicine: Management of Varicose Veins
2014	Extreme IR: Case Presentation
2014	Portal Vein Embolization
2014	Portal Vein Embolization
2014	Ablation vs. Embolization for hepatocellular carcinoma
2014	Selective Internal Radiation Therapy
2015	Do I use an IVC Filter?
2015	Case Symposium
2015	Interventional Management of Liver Transplant Complications
2016	Expanding BCLC criteria in the management of HCC
2016	Inferior Vena Cava Filter Retrievals: How Do I Do and Challenges.
2016	Radioembolization for HCC
2016	Radioembolization/SIRT in the management of colorectal liver metastases: When is it indicated?
2016	Rationale for Intra-arterial Chemoembolization of Colorectal Liver Metastases

National

<u>Year(s)</u>	<u>Presentation Title or Course Name</u>
2003	Detection of liver metastases from GI cancer: Comparison of high resolution Mn-DPDP enhanced MRI and FDG-PET (abstract)

2003	Perfusion CT of rectal cancer: Assessing Tumor Vascularity (angiogenesis) and Response to Radiotherapy - Initial Observations (abstract)
2005	Clinical significance of indirect CT venography in the detection of venous thromboembolic disease: Experience in 1012 patients (abstract)
2005	Safety and Efficacy of Retrieable Vena Cava Filters: Experience with 138 Patients. (abstract)
2005	Effect of Tube Current and Potential on the Attenuation Values of Iodinated and Gadolinium Contrast Media. A Phantom and Human Study. (abstract)
2005	Repeat CT Pulmonary Angiography (CTPA) Following a Negative CTPA during a Single Hospital Admission. (abstract)
2005	Perfusion CT as an Imaging Marker for Assessing Response of Rectal Cancer to Chemoradiation: Comparison with FDG-PET. (abstract)
2005	16-slice multi-detector renal artery CT angiography at varying tube potential in living kidney donors: Impact on image quality and radiation dose (abstract)
2005	Safety and Efficacy of Trapease Vena Cava Filters: Experience with 751 Patients. (abstract)
2006	Overview of Vena Cava Filters / Lecture
2006	CT Venography during CT pulmonary angiography: Should pelvis be imaged? (abstract)
2006	Repeated embolization for type II endoleak after endovascular or open repair of abdominal aortic aneurysms (abstract)
2006	Vena Cava Filters: Current Status / Lecture
2006	Vena Cava Filters / Lecture
2006	Vena Cava Filters: MGH Experience from 1973 to 2006 / Lecture
2006	Observations pertaining to IVC filters on Abdominal CT. (abstract)
2007	Vena Cava Filters / Lecture; Fort Lauderdale, FL (Cordis Endovascular Peer to Peer Lectures)
2007	Vena Cava Filters Workshop / Lecture & Workshop
2007	Vena Cava Filters / Lecture; Washington, DC (Cordis Endovascular Peer to Peer Lectures)
2007	Suprarenal Inferior Vena Cava Filters: Safety and Efficacy—A 20 Year Single Center Experience. (abstract)
2007	Vena Cava Filters / Lecture
2008	Case Reviews in Interventional Radiology / Lecture
2008	Chemoembolization with Doxorubicin-eluting microspheres for inoperable hepatocellular cancer: Initial results. (abstract)
2008	Vena Cava Filters: MGH Experience / Lecture
2008	Transarterial therapy for liver tumors: Recent Advances / Grand rounds
2008	Renal Artery Disease HMS: Vascular Summit 2008
2009	Vascular Imaging HMS: MGH-BWH Radiology Review
2010	Portal hypertension: Role of interventional Radiology / Visiting Professorship
2010	Vascular Interventions HMS: MGH-BWH Radiology Review
2011	Management of Portal hypertension / Visiting Professorship
2014	Pelvic venous congestion.
2014	Venous Diagnosis: Other imaging modalities: CT Venography, MR Venography, Lymphangiography, Lymphoscintigraphy, Transillumination
2014	Management of iliofemoral and subclavian venous thrombosis
2014	Nonthrombotic venous obstruction: May Thurner, Nut Cracker, Thoracic outlet syndromes
2015	Venous Diagnosis: Other imaging modalities: CT Venography, MR Venography, Lymphangiography, Lymphoscintigraphy, Transillumination
2015	Venous Tumors
2015	Venous Physiology & Lymphatic System

2015 Venous Embryology, Macroscopic Anatomy & Histology

Local

<u>Year(s)</u>	<u>Presentation Title or Course Name</u>
2007	Selective Internal Radiation Therapy for Hepatic Malignancies / Lecture Grand Rounds for Division of Hepatology, Dept of Medicine
2008	Transcatheter embolization of pseudoaneurysms associated with pancreatitis / Lecture Grand Rounds, Dept of Surgery
2008	Inferior Vena Cava Filters / Lecture Dept of Vascular & Interventional Radiology
2009	Management of Portal Hypertension / Grand Rounds
2010	Interventional in the management of pulmonary embolism / Lecture Dept of Critical Care Medicine
2010	Management of Portal Hypertension / Lecture Dept of Transplant Surgery
2011	Vascular Interventions in Pulmonary Critical Care / Lecture Dept of Critical Care Medicine
2013	Management of Portal Hypertension / Lecture Dept of Transplant Surgery
2014	Grand Rounds in Dermatology: Management of Varicose Veins
2014	Grand Rounds in Radiation Oncology: Selective internal radiation therapy for liver cancer
2015	Grand Rounds in Gastroenterology & Hepatology: Role of interventional radiology in the management of portal hypertension
2016	Interventional Radiology Management of Liver Patient; Second Annual Update on Liver Diseases; University of Texas Southwestern Medical Center
2016	Lecture: Biospecimen Procurement Experimental Therapeutics Program Retreat: Personalized Medicine
2016	UT Southwestern Multidisciplinary Gastrointestinal Symposium

REPORT OF TECHNOLOGICAL AND OTHER SCIENTIFIC INNOVATIONS

<u>Year(s)</u>	<u>Innovation/Patent Title</u>	<u>Role</u>	<u>Status</u>
2003	A Phase II/III Multicenter, Randomized Study for the Characterization of Focal Liver Lesions Using Sonovue-Enhanced Ultrasonography 7/30/2002 - 12/31/2005 Industry-sponsored Salary Support: \$33,000 (Approx) Total Budget \$163,675	Co-Investigator	Past Funded Projects
2003	Reduced indeterminate results with the use of Dual Energy for CT Venography with improvement in confidence in diagnosis of DVT of lower extremities		Dual Energy CT for CT Venography
2006	Implemented these therapies for management of heptaocellular cancer and liver metastases. These therapies have significant impact on management of these conditions. The results were presented at Annual meeting of Society of Interventional Radiology and Radiological Society of North America		Innovative therapies to liver cancer: Drug eluting microspheres and Y-90 microspheres / MGH
2006	Reduced radiation dose during CT pulmonary angiography studies. MGH adopted the new protocols. Subsequently, NEJM and Radiology supported this approach.		Limiting CT Venography to legs during CT pulmonary angiography MGH

2006	Innovative therapies to liver cancer: Drug eluting microspheres and Y-90 microspheres / MGH 2006 Impact: Implemented these therapies for management of hepatocellular cancer and liver metastases. These therapies have significant impact on management of these conditions. The results were presented at Annual meeting of Society of Interventional Radiology and Radiological Society of North America.		
2006	Limiting CT Venography to legs during CT pulmonary angiography / MGH 2006 Impact: Reduced radiation dose during CT pulmonary angiography studies. MGH adopted the new protocols. Subsequently, NEJM and Radiology supported this approach.		
2007	Transcatheter Chemoembolization with Drug-Eluting Microparticles for Liver Malignancies: Clinical Safety, Effectiveness and Long-Term Follow-Up 11/29/2007 - 11/28/2008 Salary Support \$15,000 Industry-sponsored	Principal Investigator	Past Funded Projects
2009	Intravascular ultrasound (IVUS) guided vena cava filter placement #2009P002011	Co-Investigator	Past Funded Projects
2009	Clinical utility of inferior vena cava filters in patients with stroke #2009P002179	Principal Investigator	Past Funded Projects
2009	Safety and Efficacy of "Option" retrievable vena cava filter #2009P002033	Principal Investigator	Past Funded Projects
2009	Acute Venous Thrombosis: Thrombus Removal with Adjunctive Catheter-directed Thrombolysis: The ATTRACT Trial NIH Recruit, Randomize, Perform Thrombolysis, Follow the patients clinically and on imaging Goals: To understand the effect of thrombolysis on post-thrombotic syndrome	Co-Investigaor	Past Funded Projects
2010	Efficacy of lower extremity venous thrombolysis in the setting of congenital absence/atresia of the inferior vena cava. #2010P001177	Co-Investigator	Past Funded Projects
2010	Safety of Power Injections in patients with Patent Foramen Ovale (PFO) #2010P000301	Principal Investigator	Past Funded Projects
2010	May Thurner Syndrome: Does it really increase the risk of DVT? #2010P001635	Principal Investigator	Past Funded Projects
2010	Segmental arterial mediolysis: Single center experience in symptoms, diagnosis, treatment and follow-up. #2010P002307	Principal Investigator	Past Funded Projects
2010	Phase 1 Clinical Trial of Viral Oncolysis of Liver Tumors NIH/R21 CA119600-02 9/25/2007 - 8/31/2012 Co-Investigaor Salary Support: \$10000 (Approx) Perform injection of the virus in to the hepatic artery by selective catheterization and hepatic venous sampling during and after the virus injection; Goals: To assess safety of viral oncolysis of liver tumors, assess tumor response		Past Funded Projects
2010	Efficacy of adrenal venous sampling in localizing primary aldosteronism #2010P001651	Principal Investigator	Past Funded Projects
2010	Endovascular recanalization of the thrombosed filter bearing inferior vena cava #2010P001291	Co-Investigator	Past Funded Projects
2010	Elevated intestinal fluid pressure in hepatocellular carcinoma is a barrier to transport of doxorubicin from drug eluting embolization beads #2010P001917	Co-Investigator	Past Funded Projects
2010	Chemoembolization of primary hepatocellular carcinoma: A single center experience #2010P001263	Principal Investigator	Past Funded Projects
2011	Incidence of rebleeding and ischemic complications following superselective angioembolization for gastrointestinal hemorrhage #2011P001254	Co-Investigator	Past Funded Projects
2011	Factors affecting a positive angiogram, technical success of embolization, rebleeding rates and mortality rates in patients with gastrointestinal hemorrhage #2011P001714	Principal Investigator	Past Funded Projects
2012	Retrospective review of chemoembolization for liver cancer #2012P000148	Principal Investigator	Past Funded Projects

2012	Phase 3 prospective, randomized, blinded and controlled investigation of HepaSphere/QuadraSphere microspheres for delivery of Doxorubicin for the treatment of hepatocellular cancer Recruit, Randomize, Perform chemoembolization and follow-up Impact: Goal: To assess the safety and efficacy of HepaSphere/QuadraSpheres in the treatment of hepatocellular cancer and compare it to conventional chemoembolization with lipiodol and doxorubicin.	Company Co-Investigator	Past Funded Projects
2013	Acute venous thrombosis: Thrombus removal with adjunctive catheter-directed thrombolysis (the ATTRACT trial) ID: STU 023013-007 NIH	Co-Investigaor	Past Funded Projects
2013	Outcomes in patients with hepatocellular carcinoma ID: STU 102012-084		Current Unfunded Project
2014	A Phase III Clinical Trial Evaluating TheraSphere® in Patients with Metastatic Colorectal Carcinoma of the Liver who have Failed First Line Chemotherapy	Co-Investigator	Current Funded Project
2014	Retrospective study to assess the historical practice patterns of IVC filter placement and retrieval before and after implementation of a quality improvement process		Current Unfunded Project
2014	Transjugular Intrahepatic Portosystemic shunts (TIPS): technical variations influencing outcomes		Current Unfunded Project
2014	Complications of Indwelling Percutaneous Nephrostomy (PCN) Catheters: An analysis of current practice		Current Unfunded Project
2014	A Humanitarian Device Exemption Treatment Protocol of TheraSphere For Treatment of Unresectable Hepatocellular Carcinoma		Current Unfunded Project
2014	Analysis of Patients with Urolithiasis and/or Conditions that Predispose to Urolithiasis	Co-Investigator	Current Unfunded Project
2014	A Pilot Study of "Oncozene™" Microspheres for intra-arterial delivery of doxorubicin for the treatment of patients with unresectable hepatocellular cancer	Principal Investigator	Current Funded Project
2014	The SENTRY Clinical Study. A Prospective, Multi-Center Study of the Novate Sentry Bioconvertible Inferior Vena Cava Filter	Principal Investigator	Current Funded Project
2014	A Multi-center, Early Feasibility Study of the Angel™ Catheter in Critically Ill Subjects at HighRisk of Pulmonary Embolism	Co-Investigator	Current Funded Project
2014	Observational Study of Tissue Plasminogen Activator Used for Catheter Directed Thrombolysis in Patients with Acute Lower Extremity Native Artery or Bypass Graft Occlusion	Co-Investigator	Past Funded Projects

SERVICE TO THE COMMUNITY AND PATIENT EDUCATION

<u>Years</u>	<u>Role/Description</u>	<u>Organization or Institution</u>
2008	Information on Catheter Angiography	RSNA-ACR Public web site medical advisor

BIBLIOGRAPHY OF SCHOLARLY PUBLICATIONS

Original Research Articles

- 1 Rammurti S, Kalva SP, Murthy V. Imaging features of cerebral and craniofacial aspergillosis in the immunocompetent. Rivista di Neuroradiologia. 1999;12:687-691.
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NON-PEER REVIEWED PUBLICATIONS

EDUCATIONAL MATERIALS AND MEDIA

Material Type

Oncocytoma; Kalva SP, Sahani D.

Intended Audience Usage Development Role

<http://www.emedicine.com> <http://www.emedicine.com/r>

Non-cardiac chest findings in cardiac CT; Abbara S, Kalva SP

American College of
Cardiology - CT SAP

CT SAP

Case-in-Point: Segmental arterial mediolysis; Sue H, Kalva SP.

American College of
Radiology<http://caseinpoint.acr.org/>
October 26,
2007

Information on Catheter angiography

RSNA-ACR Public web site

RSNA-ACR Public web site
medical advisor, Coauthor**THESIS AND THESIS-RELATED PRESENTATIONS OR ABSTRACT**

<u>Year(s)</u>	<u>Presentation Title</u>	<u>Presentation Type</u>
1998	Kalva SP. Magnetic Resonance Imaging of Primary Malignant Bone Tumors of the Extremities. Hyderabad, India: Nizam's Institute of Medical Sciences;1998	

FORMAL TEACHING OF RESIDENTS, CLINICAL FELLOWS AND RESEARCH (POST DOCTORAL) FELLOWS

Year(s): 2005
Talk Title: Inferior vena filters: Current Status
Institution: Massachusetts General Hospital
Audience: Radiology residents, clinical fellows, and research fellows
Effort: 1 hour lecture

Year(s): 2006
Talk Title: Case based review in Vascular Interventional Radiology
Institution: Massachusetts General Hospital
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2006
Talk Title: Vascular Radiology Quiz
Institution: Massachusetts General Hospital
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2006
Talk Title: Transarterial therapy of liver tumors
Institution: Massachusetts General Hospital
Audience: Radiology residents, clinical fellows, and research fellows
Effort: 1 hour lecture

Year(s): 2006
Talk Title: Inferior vena filters
Institution: Massachusetts General Hospital
Audience: Radiology residents, clinical fellows, and research fellows
Effort: 1 hour lecture

Year(s): 2007
Talk Title: Selective Internal Radiation Therapy (SIRT) for hepatic Malignancies
Institution: Massachusetts General Hospital
Audience: Radiology residents, clinical fellows, and research fellows
Effort: 1 hour lecture

Year(s):	2007
Talk Title:	Inferior Vena Filters: Current Status and Future Directions
Institution:	Massachusetts General Hospital
Audience:	Radiology residents, clinical fellows, and research fellows
Effort:	1 hour lecture
Year(s):	2007
Talk Title:	Case Based Review in Vascular Interventional Radiology
Institution:	Massachusetts General Hospital
Audience:	Radiology residents
Effort:	1 hour lecture
Year(s):	2007
Talk Title:	Chemoembolization of Liver Tumors
Institution:	Massachusetts General Hospital
Audience:	Radiology residents, clinical fellows, and research fellows
Effort:	1 hour lecture
Year(s):	2008
Talk Title:	Diagnosis and Management of Portal Hypertension Radiology Residents, Clinical Fellows and Research Fellows
Institution:	Massachusetts General Hospital
Audience:	Radiology residents
Effort:	1 hour lecture
Year(s):	2008
Talk Title:	Portal Hypertension: Role of Interventional Radiology in the Diagnosis and Management of Portal Hypertension
Institution:	Massachusetts General Hospital
Audience:	Radiology residents, clinical fellows, and research fellows
Effort:	1 hour lecture
Year(s):	2008
Talk Title:	Case Based Review in Vascular Interventional Radiology
Institution:	Massachusetts General Hospital
Audience:	Radiology residents
Effort:	1 hour lecture
Year(s):	2009
Talk Title:	HMS Core Clerkship in Medicine Case Conference
Institution:	Massachusetts General Hospital
Audience:	3rd year Medical Students
Effort:	1 hr session per year
Year(s):	2009
Talk Title:	Thromboembolic Disease: Role of Inferior Vena Cava Filters
Institution:	Massachusetts General Hospital
Audience:	Radiology residents, clinical fellows, and research fellows
Effort:	1 hour lecture
Year(s):	2009
Talk Title:	Varicose veins: Endovenous Therapy
Institution:	Massachusetts General Hospital
Audience:	Radiology residents, clinical fellows, and research fellows
Effort:	1 hour lecture

Year(s): 2009
Talk Title: Case Based Review in Vascular Interventional Radiology
Institution: Massachusetts General Hospital
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2009
Talk Title: Inferior Vena Filters
Institution: Massachusetts General Hospital
Audience: Radiology residents, clinical fellows, and research fellows
Effort: 1 hour lecture

Year(s): 2009
Talk Title: Management of Portal Hypertension
Institution: Massachusetts General Hospital
Audience: Radiology residents, clinical fellows, and research fellows
Effort: 1 hour lecture

Year(s): 2009
Talk Title: Selective Internal Radiation Therapy (SIRT) for Hepatic Malignancies
Institution: Massachusetts General Hospital
Audience: Radiology residents, clinical fellows, and research fellows
Effort: 1 hour lecture

Year(s): 2009-2013
Talk Title: HMS Core Clerkship in Radiology (RD500.M3) on Vascular Interventional Radiology
Institution: Massachusetts General Hospital
Audience: 3rd year Medical Students
Effort: 2 hrs per year

Year(s): 2009-2013
Talk Title: HMS Core Clerkship in Radiology (RD500.M3) on Vascular Imaging
Institution: Massachusetts General Hospital
Audience: 3rd year Medical Students
Effort: 1 hr session every month (10 sessions per year)

Year(s): 2009-2013
Talk Title: Board Review in Vascular Radiology
Institution: Massachusetts General Hospital
Audience: 4th year radiology residents
Effort: 3 hour lecture, 2 times per year

Year(s): 2010
Talk Title: Case Based Review in Vascular Interventional Radiology
Institution: Massachusetts General Hospital
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2011
Talk Title: Inferior vena filters: Current Status
Institution: Massachusetts General Hospital
Audience: Radiology residents, Clinical fellows and Research fellows
Effort: 1 hour lecture

Year(s): 2011

Talk Title: Endovenous thermal ablation of varicose veins

Institution: Massachusetts General Hospital

Audience: Radiology residents

Effort: 1 hour lecture

Year(s): 2011

Talk Title: Case based review in Vascular Interventional Radiology

Institution: Massachusetts General Hospital

Audience: Radiology residents

Effort: 1 hour lecture

Year(s): 2011

Talk Title: Case Based Review in Vascular Interventional Radiology

Institution: Massachusetts General Hospital

Audience: Radiology residents

Effort: 1 hour lecture

Year(s): 2011

Talk Title: Role of Interventional Radiology in the Diagnosis and Management of Portal Hypertension

Institution: Massachusetts General Hospital

Audience: Radiology residents, clinical fellows, and research fellows

Effort: 1 hour lecture

Year(s): 2012

Talk Title: Chemoembolization of liver tumors

Institution: Massachusetts General Hospital

Audience: Radiology residents, Clinical Fellows and Research fellows

Effort: 1 hour lecture

Year(s): 2012

Talk Title: Selective Internal Radiation Therapy (SIRT) for hepatic malignancies

Institution: Massachusetts General Hospital

Audience: Radiology residents, Clinical Fellows and Research fellows

Effort: 1 hour lecture

Year(s): 2012-2013

Talk Title: Board Review in Vascular Radioogy

Institution: Massachusetts General Hospital

Audience: 4th year Radiology residents of Boston Medical Center, Boston

Effort: 1 hour lecture

Year(s): 2013

Talk Title: Lecture: Portal Venous Interventions: Part 1

Institution: University of Texas Southwestern Medical Center

Audience: Radiology residents

Effort: 1 hour lecture

Year(s): 2013
Talk Title: Lecture: Portal Venous Interventions: Part 2
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2013
Talk Title: Board Review in Vascular Radioogy
Institution: Massachusetts General Hospital
Audience: 4th year Radiology residents
Effort: 1 hour lecture

Year(s): 2013
Talk Title: Portal vein embolization
Institution: Massachusetts General Hospital
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2013
Talk Title: Case based review in Vascular Interventional Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2013
Talk Title: Southwestern Medical School Core Clerkship in Radiology: Vascular Interventional Radiology
Institution: University of Texas Southwestern Medical Center
Audience: 4th year Medical Students
Effort: 1 hr session every month (10 sessions per year)

Year(s): 2014
Talk Title: Case based review in Vascular Interventional Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2014
Talk Title: Chemoembolization of liver tumors
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2015
Talk Title: MR Angiography
Institution: University of Texas Southwestern Medical Center
Audience: Vascular Interventional Radiology Fellows
Effort: 30 minute lecture

Year(s): 2015
Talk Title: Case based review in Vascular Interventional Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2015
Talk Title: Radioembolization for HCC
Institution: University of Texas Southwestern Medical Center
Audience: Vascular Interventional Radiology Fellows
Effort: 30 minute lecture

Year(s): 2015
Talk Title: BRT0
Institution: University of Texas Southwestern Medical Center
Audience: Vascular Interventional Radiology Fellows
Effort: 30 minute lecture

Year(s): 2015
Talk Title: Case based review in Vascular Interventional Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Vascular Interventional Radiology Fellows
Effort: 30 minute lecture

Year(s): 2015
Talk Title: Board Review in Vascular Interventional Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2015
Talk Title: Case based review in Vascular Interventional Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Vascular Interventional Radiology Residents & Fellows
Effort: 30 minute lecture

Year(s): 2015
Talk Title: Nonthrombotic Venous obstruction: May Thurner, Nut Cracker, Paget Schroedder syndromes
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2015
Talk Title: Management of Varicose Veins
Institution: University of Texas Southwestern Medical Center
Audience: Varicose Veins
Radiology residents
Effort: 1 hour lecture

Year(s): 2015
Talk Title: Venous insufficiency
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2015
Talk Title: Y90 Brachytherapy: Technical aspects and results
Radiology Residents
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2015
Talk Title: Case based review in Vascular Interventional
Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Vascular Interventional Radiology Fellows
Effort: 30 minute lecture

Year(s): 2015
Talk Title: Board Review in Vascular Interventional
Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents
Effort: 1 hour lecture

Year(s): 2016
Talk Title: Case based review in Vascular Interventional
Radiology
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents/fellows
Effort: 30 minute lecture

Year(s): 2016
Talk Title: Role of interventional radiology in the diagnosis
and management of liver patients
Institution: University of Texas Southwestern Medical Center
Audience: Radiology residents, Clinical Fellows
Effort: 30 minute lecture

CLINICAL SUPERVISORY AND TRAINING RESPONSIBILITIES

Year(s): 2006-2013
Institution: Massachusetts General Hospital
Responsibilities: Vascular Interventional Radiology Clinic Preceptor
Effort: 8 hr session per week

Year(s): 2006-2013
Institution: Massachusetts General Hospital
Responsibilities: Supervision and Training of residents and fellows
in vascular interventions
Effort: 8 hr session three days a week

Year(s): 2006-2013
Institution: Massachusetts General Hospital
Responsibilities: Training of fellows in Vascular Imaging
Effort: 8 hr session every two weeks

Year(s): 2013-
Institution: University of Texas Southwestern
 Medical Center
Responsibilities: Supervision and Training of residents and fellows
 in vascular imaging and interventional radiology
Effort:

LABORATORY AND OTHER RESEARCH SUPERVISORY AND TRAINING RESPONSIBILITIES

Year(s): 2009-2010
Institution: Harvard Medical School, Boston, MA
Responsibilities: Supervision of medical student on creation of
 laboratory model of inferior vena cava filter flow
 dynamics and emboli trapping
Effort: Daily mentorship for 3 months

FORMALLY SUPERVISED TRAINEES WHO CO-PUBLISHED OR CO-PRESENTED RESULTS OF EFFORT

Year(s): 2005-2006
Trainee Name / Degree: Doug McDonald
Trainee Current Position: Faculty at Scott and White Hospital
Accomplishments: Published a manuscript in Cardiovascular & Interventional Radiology

Year(s): 2006
Trainee Name / Degree: Jagannathan J
Trainee Current Position: Faculty at Dana Farber Cancer Institute
Accomplishments: Published a manuscript in Radiology; Cum Laude Award at Society of Computed Body
 Tomography and Magnetic Resonance

Year(s): 2006-2007
Trainee Name / Degree: Juan Narvaez
Trainee Current Position: Faculty in Baltimore
Accomplishments: Published a book chapter in Image-guided interventions

Year(s): 2007-2008
Trainee Name / Degree: Chistine Chao
Trainee Current Position: Faculty in Kaiser Permanente, CA
Accomplishments: Published a manuscript in Radiographics, Presented an abstract and two educational exhibits at
 RSNA

Year(s): 2007-2008
Trainee Name / Degree: Joe Golowa
Trainee Current Position: Faculty at Montefiore Medical Center, NY
Accomplishments: Published a manuscript in Journal of Vascular Interventional Radiology

Year(s): 2007-2009
Trainee Name / Degree: Bhavika Dave
Trainee Current Position: Assistant Professor at University of Mississippi
Accomplishments: Published two manuscripts, one in Cardiovascular Catheterizations and the other in Vascular
 Endovascular Surgery; Presented three abstracts at RSNA

Year(s): 2008
Trainee Name / Degree: Sangwaiya MJ
Trainee Current Position: Resident in Radiology in United Kingdom
Accomplishments: Published a manuscript in Journal of Vascular Interventional Radiology

Year(s):	2008-2010
Trainee Name / Degree:	Ashraf Thabet
Trainee Current Position:	Faculty in Abdominal Imaging & Intervention, MGH
Accomplishments:	Published two book chapters, two reviews in Radiographics
Year(s):	2008-2010
Trainee Name / Degree:	Ahmad I
Trainee Current Position:	Clinical Fellow in University of Indiana
Accomplishments:	Published two manuscript in Cardiovascular Interventional Radiology
Year(s):	2008-2010
Trainee Name / Degree:	Kalpan Yeddula
Trainee Current Position:	Resident at St Joseph Hospital, Chicago
Accomplishments:	Published five manuscripts, presented five abstracts at SIR/RSNA
Year(s):	2008-2010
Trainee Name / Degree:	Shams Iqbal
Trainee Current Position:	Faculty at Lahey Clinic, Burlington, MA
Accomplishments:	Published one book chapter, seven abstracts at the RSNA/SIR, Two manuscripts in Vascular Endovascular Surgery
Year(s):	2008-2012
Trainee Name / Degree:	Bhanusupriya Somarouthu
Trainee Current Position:	Research fellow in Radiology, MGH
Accomplishments:	Published two manuscripts, presented four abstracts at SIR/RSNA; Certificate of merit award at RSNA
Year(s):	2009
Trainee Name / Degree:	Walter Zawacki NP
Trainee Current Position:	Clinical NP at University Massachusetts Memorial Hospital.
Accomplishments:	Published a manuscript in Journal of Vascular Interventional Radiology
Year(s):	2009-2010
Trainee Name / Degree:	Rahmi Oklu
Trainee Current Position:	Faculty in Vascular Interventional Radiology, MGH
Accomplishments:	Published a book chapter on Embolization of Renal Tumors
Year(s):	2009-2012
Trainee Name / Degree:	Melina Pectasides
Trainee Current Position:	Clinical Fellow in Vascular Interventional Radiology MGH
Accomplishments:	Published a manuscript in AJR, Three abstracts at SIR, One abstract at GEST
Year(s):	2010-2011
Trainee Name / Degree:	Roy Habito
Trainee Current Position:	Clinical Fellow in Nuclear Medicine at MGH
Accomplishments:	Published a manuscript in Hospital Practice, two in JVIR
Year(s):	2010-2011
Trainee Name / Degree:	Khashayar Farsad
Trainee Current Position:	Faculty at University of Oregon, Portland
Accomplishments:	Published a book chapter and an abstract at the SIR
Year(s):	2011-2012
Trainee Name / Degree:	Christine Kassis
Trainee Current Position:	Resident in Radiology, MGH
Accomplishments:	Published a manuscript in Vascular Endovascular Surgery

Year(s):	2011-2012
Trainee Name / Degree:	Sandeep Hedgeire
Trainee Current Position:	Research Fellow in Abdominal Imaging & Intervention, MGH
Accomplishments:	Published two book chapters and a manuscript in Vascular Endovascular Surgery
Year(s):	2011-2013
Trainee Name / Degree:	Azadeh Elmi
Trainee Current Position:	Research Fellow in Radiology, MGH
Accomplishments:	Published a manuscript in Vascular Endovascular Surgery. Another manuscript in preparation
Year(s):	2012-2013
Trainee Name / Degree:	Sabir Taj
Trainee Current Position:	Clinical Fellow in Vascular Interventional Radiology, MGH
Accomplishments:	Manuscript in preparation
Year(s):	2012-2013
Trainee Name / Degree:	Sashidhar Yallampalli
Trainee Current Position:	Clinical Fellow in Vascular Interventional Radiology, MGH
Accomplishments:	Published one manuscript in J Vascular Endovascular Surgery. Another manuscript in preparation
Year(s):	2012-2013
Trainee Name / Degree:	Anand Prabhakar
Trainee Current Position:	Clinical fellow in Abdominal Imaging & Intervention, MGH
Accomplishments:	Manuscript in preparation
Year(s):	2013-2014
Trainee Name / Degree:	Brice Andring, Rajiv Srivastava, Jed Hummel
Trainee Current Position:	Residents Mentored on various research projects UT Southwestern Medical Center
Accomplishments:	Brice Andring: TIPS; Rajiv Srivastava: Portosystemic shunt embolization; Jed Hummel: Toxic Vasculopathies
Year(s):	2014
Trainee Name / Degree:	Mark Reddick
Trainee Current Position:	Faculty in VIR UT Southwestern Medical Center
Accomplishments:	Manuscript on Catheter directed thrombolysis for acute pulmonary embolism in lung transplants
Year(s):	2014-2015
Trainee Name / Degree:	Mathew E Anderson
Trainee Current Position:	Faculty in VIR UT Southwestern Medical Center
Accomplishments:	Book chapter
Year(s):	2014-2015
Trainee Name / Degree:	Anil Pillai
Trainee Current Position:	Faculty in VIR UT Southwestern Medical Center
Accomplishments:	Various projects
Year(s):	2014-2015
Trainee Name / Degree:	Katherine Reif
Trainee Current Position:	Medical Student UT Southwestern Medical Center
Accomplishments:	Scientific abstract
Year(s):	2014-2015
Trainee Name / Degree:	Jarrold McFarlane
Trainee Current Position:	Clinical Fellow in Vascular Interventional Radiology UT Southwestern Medical Center
Accomplishments:	Various projects

Year(s): 2014-2015
Trainee Name / Degree: Stephen Reis
Trainee Current Position: Faculty in VIR UT Southwestern Medical Center
Accomplishments: Fractal analysis of CT data on patients undergoing TACE

Year(s): 2015
Trainee Name / Degree: Simmer Grewal
Trainee Current Position: Medical Student UT Southwestern Medical Center
Accomplishments: Medical Student at UT Manuscript

Year(s): 2015
Trainee Name / Degree: Ankaj Khosla
Trainee Current Position: Resident in Radiology UT Southwestern Medical Center
Accomplishments: Multiple abstracts, exhibits, book chapters, manuscripts

Year(s): 2015
Trainee Name / Degree: Srinivasa R
Trainee Current Position: Resident in Radiology UT Southwestern Medical Center
Accomplishments: Abstract and Manuscript on Treatment of spontaneous portosystemic shunts

Year(s): 2015-2016
Trainee Name / Degree: Murthy Chamrathy
Trainee Current Position: Faculty in VIR UT Southwestern Medical Center
Accomplishments: Two review articles, one book chapter

FORMAL TEACHING OF PEERS (CME ONLY)

Year(s): 2007
Course Name:
Title(s)/Topic(s) of Talks: Embolization for Angiomyolipoma
Location: Boston, MA (New England Society of Pediatric Nephrology)

Year(s): 2007
Course Name:
Title(s)/Topic(s) of Talks: Vena Cava Filters Workshop / Lecture & Workshop
Location: Seattle, WA (Society of Interventional Radiology)

Year(s): 2012
Course Name:
Title(s)/Topic(s) of Talks: Anatomy of Gonadal Veins
Location: New York, NY (Global Embolization Symposium and Therapeutics GEST)

Year(s): 2012
Course Name:
Title(s)/Topic(s) of Talks: Room set-up for Y-90 therapy
Location: San Francisco, CA (Association of Vascular Interventional Radiology Technologists)

Year(s): 2012
Course Name:
Title(s)/Topic(s) of Talks: Drug-eluting beads for HCC: State of Evidence
Location: New York, NY (Global Embolization Symposium and Therapeutics GEST)

Year(s): 2013
Course Name:
Title(s)/Topic(s) of Talks: Workshop on Arterial Access - Tricks and Tips for difficult access
Location: Chicago, IL. Society of Interventional Radiology

Year(s):	2014
Course Name:	
Title(s)/Topic(s) of Talks:	Workshop on Arterial Access - Tricks and Tips for difficult access
Location:	San Diego, CA. Society of Interventional Radiology
Year(s):	2014
Course Name:	
Title(s)/Topic(s) of Talks:	Diagnosis of Pulmonary Embolism
Location:	Phoenix, AZ, American College of Phlebology Annual Meeting
Year(s):	2015
Course Name:	
Title(s)/Topic(s) of Talks:	Vascular Interventions Related to Liver Transplantation
Location:	Atlanta, Georgia. Society of Interventional Radiology Annual Meeting
Year(s):	2015
Course Name:	
Title(s)/Topic(s) of Talks:	Improving Inferior Vena Cava Filter Retrieval Rates with the DMAIC Methodology
Location:	Atlanta, Georgia. Society of Interventional Radiology Annual Meeting
Year(s):	2015
Course Name:	
Title(s)/Topic(s) of Talks:	Management of Portal Hypertension: BRTO/PARTO/CARTO
Location:	Boston, MA. Digestive Disease Interventions Conference
Year(s):	2016
Course Name:	
Title(s)/Topic(s) of Talks:	Nonvascular complications of liver transplant: Workshop on Interventions in Organ Transplants
Location:	Vancouver, CA. Society of Interventional Radiology
Year(s):	2016
Course Name:	
Title(s)/Topic(s) of Talks:	Panelist: Evolving filter indications in accountable care
Location:	Vancouver, CA. Society of Interventional Radiology
Year(s):	2016
Course Name:	
Title(s)/Topic(s) of Talks:	Interventional Radiology in the management of Pregnancy Complications
Location:	Texas Radiological Society Annual Meeting, San Antonio TX

CLINICAL SERVICE ACTIVITIES AND RECOGNITIONS

Practice Activities

<u>Specialty</u>	<u>Practice Setting</u>	<u>Location of Practice</u>	<u>Activity Level</u>
Assistant Radiologist		Vascular Interventional Radiology MGH, Boston, MA	2006-2013
Clinical Fellow		Vascular Interventional Radiology MGH, Boston, MA	2004 -2006
Clinical Radiology		General & Vascular Interventional Radiology Kovai Medical Center & Hospital, Coimbatore, India	2000-2003
Clinical Radiology		General Radiology Nizam's Institute of Medical Sciences, Hyderabad, India	1999
Interventional Radiologist		Interventional Radiology UT Southwestern Medical Center, Dallas, TX	2013-

GRANT SUPPORT FUNDED AND UNFUNDED PROJECTS

Existing/Continued/Extended Grants

Grantor:		
Title of Project:	The SENTRY Clinical Study - A Prospective, Multi-Center Study of the Novate Sentry Bioconvertible Inferior Vena Cava Filter	
Investigator Role:	PI	
Annual Amount:		Year(s): 2014
Total Award Amount:		
Grantor:		
Title of Project:	A Phase III Clinical Trial Evaluating TheraSphere in Patients with Metastatic Colorectal Carcinoma of the Liver who have Failed First Line Chemotherapy	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2014
Total Award Amount:		
Grantor:		
Title of Project:	A Pilot Study of "OncozeneTM" Microspheres for intra-arterial delivery of doxorubicin for the treatment of patients with unresectable hepatocellular cancer	
Investigator Role:	PI	
Annual Amount:		Year(s): 2014
Total Award Amount:		

Expired Grant Awards

Grantor:		
Title of Project:	Liver Lesion Characterization with Extravascular Gadolinium Chelates in Patients Studies with Hepatobiliary Contrast Agent Mangagodipir Trisodium #2003P000601	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2003
Total Award Amount:		
Grantor:		
Title of Project:	Comparison of 4 Slice and 16 Slice Helical CT in terms of Quality of CT Angiography #2003P000599	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2003
Total Award Amount:		
Grantor:	Industry-Sponsored	
Title of Project:	A Phase II/III Multicenter, Randomized Study for the Characterization of Focal Liver Lesions Using Sonovue-Enhanced Ultrasonography - 07/30/2002 - 12/31/2005	
Investigator Role:	Co-Invest	
Annual Amount:	\$163,675	Year(s): 2003
Total Award Amount:		
Grantor:		
Title of Project:	Utility of Intraoperative Ultrasound in Patients Undergoing Surgery for Liver Metastases#2003P000597	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2003
Total Award Amount:		
Grantor:		
Title of Project:	Evaluation of Intraductal Papillary Mucinous Tumors of Pancreas: Comparison of Curved Reformations on Contrast Enhanced CT and MRCP #2003P000600	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2003
Total Award Amount:		

Grantor:

Title of Project: Comparison of CT and MRI in the Preoperative Evaluation of Liver Donors
#2003P001811

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2003

Total Award Amount:

Grantor:

Title of Project: Comparison of Axial CT and Reformatted Coronal CT in the Evaluation of
Abdomen #2003P001812

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2003

Total Award Amount:

Grantor:

Industry-sponsored

Title of Project: A Phase 3, Open-Label, Multicentre Study to Determine Efficacy and Safety of VISIPAQUE (TM) (Iodixanol) Injection for Use in Intravenous Contrast-Enhanced CT Angiography of Abdominal Visceral Vessels

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2003

Total Award Amount:

Grantor:

Industry-sponsored

Title of Project: Randomized, Multicenter, Open-Label Study of the Safety (Open-Label) and Efficacy (Open-Label & Blinded Reader) of Magnevist® Injection-Enhanced Magnetic Resonance Arteriography (MRA) at Two Dose Levels and 2-Dimensional-Time-of-Flight (2D-TOF) MRA in Patients Undergoing MRA of the Infrarenal Aorta and Peripheral Arteries with Intra-arterial Digital Subtraction Arteriography i.a.DSA as Standard of Reference

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2003

Total Award Amount:

Grantor:

Industry-sponsored

Title of Project: A Phase 3, Open-Label, Multicentre Study of Efficacy and Safety of VISIPAQUE (TM) (Iodixanol) in Subjects with Suspected Peripheral Arterial Occlusive Disease Undergoing Intravenous Contrast-Enhanced Computer Tomographic Angiography

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2003

Total Award Amount:

Grantor:

Title of Project: Liver Lesion Detection on Mangafodipir Enhanced Liver: Routine Thick
Slice Imaging Versus High Resolution Thin Slice Imaging #2003P000612

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2003

Total Award Amount:

Grantor:

Industry-sponsored

Title of Project: Isovue®/Iopamiro®-370 and Visipaque® 320 in Patients Undergoing Computer Tomographic Angiography of the Lower Extremities (Invicta) Isovue

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2004

Total Award Amount:

Grantor: Industry-sponsored**Title of Project:** CT Angiography of Renal Donors #2004P001393**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2004**Total Award Amount:**

Grantor:**Title of Project:** Value of Liver MRI After Recently Performed Abdominal CT #2004P000564**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2004**Total Award Amount:**

Grantor:**Title of Project:** Feasibility of 64-Slice MDCT to Rule Out Coronary Artery Disease, Pulmonary Embolism, and Aortic Dissection with a Single-Contrast Bolus and 20 sec Scan Duration #2005P002068**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2005**Total Award Amount:**

Grantor:**Title of Project:** Retrospective Study of Safety and Efficacy of Inferior Vena Cava Filters #2005P000040**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2005**Total Award Amount:**

Grantor:**Title of Project:** Clinical Utility of MR Venography and Ultrasound for Lower Extremity Venous System in Detecting Source of Paradoxical Embolism in Patients Presenting with Stroke and Having Patent Foramen Ovale #2005P001787**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2005**Total Award Amount:**

Grantor:**Title of Project:** CT Angiography of Aorta of Various CT Technical Parameters #2005P000202**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2005**Total Award Amount:**

Grantor:**Title of Project:** Clinical Utility of Magnetic Resonance Angiography of Renal Arteries #2005P000201**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2005**Total Award Amount:**

Grantor:**Title of Project:** Retrospective Study of Safety and Efficacy of Inferior**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2005**Total Award Amount:**

Grantor: Industry-sponsored**Title of Project:** A Non-randomized Prospective Study of IVC Filter Retrieval Out to 12 Weeks Without Interim Filter Manipulation Utilizing the Gunther Tulip Vena Cava Filter**Investigator Role:** Co-Invest**Annual Amount:** **Year(s):** 2005**Total Award Amount:**

Grantor:

Title of Project: A Comparative, Study to Assess the Utility of Simplified Multiplanar CT Reconstructions Created at Scanner Console and Advanced 3D Images for Preoperative Evaluation of Living Kidney Donors Prior to Laproscopic Donor Nephrectomy #2005P002636

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2005

Total Award Amount:

Grantor:

Title of Project: Effectiveness of Portal Vein Embolization Prior to Liver Surgery #2004P001723

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2005

Total Award Amount:

Grantor:

Title of Project: A Comparative Study to Assess the Utility of Simiplified Multiplanar CT Reconstructions Created at Scanner Console and Advanced 3D Images for Preoperative Staging of Liver Malignancies and Evaluation of Liver Transplants #2005P002617

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2005

Total Award Amount:

Grantor:

Title of Project: Effectiveness of Secondary Interventions Following Endograft Placement in Patients with Abdominal Aortic Aneurysms #205P000791

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2005

Total Award Amount:

Grantor:

Industry-sponsored

Title of Project: Phase 3, Multicenter, Multinational, Open-Label study to Evaluate the Safety and Efficacy of Alfimeprase in Subjects with Occluded Central Venous Access Devices (SONOMA-3)

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2006

Total Award Amount:

Grantor:

Title of Project: Long Term Clinical Outcome Following TIPS #2006P000689

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2006

Total Award Amount:

Grantor:

Title of Project: Complications of IVC Filters Detected Incidentally on Abdominal CT Scans #2006P000329

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2006

Total Award Amount:

Grantor:

Title of Project: CT Venography During CT Pulmonary Angiography #2007P000007

Investigator Role: PI

Annual Amount: **Year(s):** 2007

Total Award Amount:

Grantor:	Industry-Sponsored	
Title of Project:	Trancatheter Chemoembolization with Drug-Eluting Microparticles for Liver Malignancies: Clinical Safety, Effectiveness and Long-Term Follow-Up - 11/29/2007 - 11/28/2008	
Investigator Role:	PI	
Annual Amount:	\$30,000	Year(s): 2007
Total Award Amount:		
Grantor:		
Title of Project:	Safety and Efficacy of Supra-Renal Vena Cava Filters #2007P000267	
Investigator Role:	PI	
Annual Amount:		Year(s): 2007
Total Award Amount:		
Grantor:		
Title of Project:	Outcomes after Endovenous Laser Aglation Therapy (EVL) of the Lesser Saphenous Vein (LSV) #2007P001561	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2007
Total Award Amount:		
Grantor:		
Title of Project:	Retrospective Analysis of Inferior Vena Cava Filter Retrievals #2007P001156	
Investigator Role:	PI	
Annual Amount:		Year(s): 2007
Total Award Amount:		
Grantor:		
Title of Project:	A Retrospective Analysis of Wound Dehiscence or Failure to Heal in Patients Who Receive an Implanted Port While Under Treatment with Bevacizumab (Avastin) #2007P002296	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2007
Total Award Amount:		
Grantor:	Industry-sponsored	
Title of Project:	Study of the OmniWave TM Endovascular (OES) in Subjects with Lower and Upper Extremity Deep Vein Thrombosis - SONIC Study	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2007
Total Award Amount:		
Grantor:		
Title of Project:	The Efficacy of Bead Block vs Embosphere on Uterine Artery Embolization for Uterine Fibroid-Clinical and Imaging Outcomes #2008P001626	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Retrospective Study of Bronchial Artery Embolization in Hemoptysis Patients #2008P000305	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Angiographic Embolization After Severe Splenic Injury #2008P001521	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2008
Total Award Amount:		

Grantor:	Industry-sponsored	
Title of Project:	A Multinational, Multicenter, Randomized, Double Blind Study Comparing the Efficacy and Safety of AVE5026 with Enoxaparin for the Prevention of Venous Thromboembolism in Patients Undergoing Major Abdominal Surgery	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Comparison between flat-panel Volumetric Computed Tomography (fp VCT), Computed Tomography Angiography (CTA) and Conventional Catheter angiogram for evaluation of cervical and intracranial vascular pathologies #2008P002384	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Outcomes of Patients with Thrombus in the IVC Filter #2008P002431	
Investigator Role:	PI	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Early Dysfunction of Transjugular Intrahepatic Portosystemic Shunt (TIPS): Etiology and Therapeutic Options #2008P000311	
Investigator Role:	PI	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Safety and Effectiveness of Selective Internal Radiation Therapy in the Treatment of Liver Metastases #2008P000358	
Investigator Role:	PI	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Non-Invasive Angiography and Perfusion Study of Limb-threatening Peripheral Ischemia using Ultra-high Resolution Flat-panel Volume CT #2008P000704	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:		
Title of Project:	Retrospective Study of Embolization of Inferior Pancreaticoduodenal Artery Aneurysms in Association with Celiac Artery Stenosis #2008P000712	
Investigator Role:	PI	
Annual Amount:		Year(s): 2008
Total Award Amount:		
Grantor:	NIH	
Title of Project:	Acute Venous Thrombosis: Thrombus Removal with Adjunctive Catheter-directed Thrombolysis: The ATTRACT Trial. Recruit, randomize, perform thrombolysis, follow the patients clinically and on imaging. Goals: To understand the effect of thrombolysis on post-thrombotic syndrome	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2009
Total Award Amount:		

Grantor:	Industry-Sponsored	
Title of Project:	Evaluation of Dotarem-Enhanced MRA Compared to Time-Of-Flight MRA in the Diagnosis of Renal Arterial Disease	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2009
Total Award Amount:		
Grantor:		
Title of Project:	Clinical utility of inferior vena cava filters in patients with stroke #2009P002179	
Investigator Role:	PI	
Annual Amount:		Year(s): 2009
Total Award Amount:		
Grantor:		
Title of Project:	Intravascular ultrasound (IVUS) guided vena cava filter placement #2009P002011	
Investigator Role:	Co-Invest	
Annual Amount:		Year(s): 2009
Total Award Amount:		
Grantor:		
Title of Project:	Portal vein embolization prior to hepatic resection for lobar hypertrophy #2009P000818	
Investigator Role:	PI	
Annual Amount:		Year(s): 2009
Total Award Amount:		
Grantor:		
Title of Project:	Retrospective Analysis of Visceral Artery Aneurysms Associated with Pancreatitis and Pancreatic Surgery #2009P000180	
Investigator Role:	PI	
Annual Amount:		Year(s): 2009
Total Award Amount:		
Grantor:		
Title of Project:	Safety and Efficacy of "Option" retrievable vena cava filter #2009P002033	
Investigator Role:	PI	
Annual Amount:		Year(s): 2009
Total Award Amount:		
Grantor:		
Title of Project:	Chemoembolization of primary hepatocellular carcinoma: A single center experience #2010P001263	
Investigator Role:	PI	
Annual Amount:		Year(s): 2010
Total Award Amount:		
Grantor:	NIH/R21 CA 119600-02	
Title of Project:	Phase 1 Clinical Trial of Viral Oncolysis of Liver Tumors; Perform injection of the virus in to the hepatic artery by selective catheterization and hepatic venous sampling during and after the virus injection; Goals: To assess safety of viral oncolysis of liver tumors, assess tumor response	
Investigator Role:	Co-Invest	
Annual Amount:	\$10,000	Year(s): 2010
Total Award Amount:		
Grantor:		
Title of Project:	Safety of Power Injections in patients with Patent Foramen Ovale (PFO) #2010P000301	
Investigator Role:	PI	
Annual Amount:		Year(s): 2010
Total Award Amount:		

Grantor:

Title of Project: Efficacy of lower extremity venous thrombolysis in the setting of congenital absence/atresia of the inferior vena cava #2010P001177

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2010

Total Award Amount:

Grantor:

Title of Project: May-Thurner Syndrome: Does it really increase the risk of DVT? #2010P001635

Investigator Role: PI

Annual Amount: **Year(s):** 2010

Total Award Amount:

Grantor:

Title of Project: Efficacy of adrenal venous sampling in localizing primary aldosteronism #2010P001651

Investigator Role: PI

Annual Amount: **Year(s):** 2010

Total Award Amount:

Grantor:

Title of Project: Elevated intestinal fluid pressure in hepatocellular carcinoma is a barrier to transport of doxorubicin from drug eluting embolization beads #2010P001917

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2010

Total Award Amount:

Grantor:

Title of Project: Segmental arterial mediolysis: Single center experience in symptoms, diagnosis, treatment and follow-up #2010P002307

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2010

Total Award Amount:

Grantor:

Title of Project: Endovascular recanalization of the thrombosed filter bearing inferior vena cava #2010P001291

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2010

Total Award Amount:

Grantor:

Title of Project: Incidence of rebleeding and ischemic complications following superselective angioembolization for gastrointestinal hemorrhage #2011P1254

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2011

Total Award Amount:

Grantor:

Title of Project: Factors affecting a positive angiogram, technical success of embolization, rebleeding rates and mortality rates in patients with gastrointestinal hemorrhage #2011P001714

Investigator Role: PI

Annual Amount: **Year(s):** 2011

Total Award Amount:

Grantor:

Title of Project: Retrospective review of chemoembolization for liver cancer #2012P00148

Investigator Role: PI

Annual Amount: **Year(s):** 2012

Total Award Amount:

Grantor:

Title of Project: Phase 3 prospective, randomized, blinded and controlled investigation of HepaSphere/QuadraSphere microspheres for delivery of Doxorubicin for the treatment of hepatocellular cancer. Recruit, randomize, perform chemoembolization and follow-up. Goal: Assess the safety and efficacy of HepaShpere/QuadraSpheres in the treatment of hepatocellular cancer and compare it to conventional chemoembolization with lipiodol and doxorubicin.

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2012

Total Award Amount:

Grantor: NIH

Title of Project: Acute Venous Thrombosis: Thrombus Removal with adjunctive catheter-directed thrombolysis (the ATTRACT trial) - ID: STU 023013-007 09/25/2007 - 08/31/2012

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2013

Total Award Amount:

Grantor:

Title of Project: Observational Study of Tissue Plasminogen Activator used for Catheter Directed Thrombolysis in Patients with Accute Lower Extremity Native Artery or Bypass Graft Occlusion

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2014

Total Award Amount:

Grantor:

Title of Project: A Multi-center, Early Feasibility Study of the Angel Catheter in Critically Ill Subjects at High Risk of Pulmonary Embolism

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2014

Total Award Amount:

Unfunded Research Projects

Grantor:

Title of Project: Outcomes in patients with hepatocellular carcinoma - ID: STU 102012-084

Investigator Role:

Annual Amount: **Year(s):** 2013

Total Award Amount:

Grantor:

Title of Project: A Humanitarian Device Exemption Treatment Protocol of TheraSphere For Treatment of Unresectable Hepatocellular Carcinoma

Investigator Role:

Annual Amount: **Year(s):** 2014

Total Award Amount:

Grantor:

Title of Project: Retrospective study to assess the historical practice patterns of IVC filter placement and retrieval before and after implementation of a quality improvement process

Investigator Role:

Annual Amount: **Year(s):** 2014

Total Award Amount:

Grantor:

Title of Project: Analysis of Patients with Urolithiasis and/or Conditions that Predispose to Urolithiasis

Investigator Role: Co-Invest

Annual Amount: **Year(s):** 2014

Total Award Amount:

Grantor:

Title of Project: Complications of Indwelling Percutaneous Nephrostomy (PCN) Catheters: An analysis of current practice

Investigator Role:**Annual Amount:****Year(s):** 2014**Total Award Amount:****Grantor:**

Title of Project: Transjugular Intrahepatic Portosystemic shunts (TIPS): technical variations influencing outcomes

Investigator Role:**Annual Amount:****Year(s):** 2014**Total Award Amount:****NARRATIVE REPORT**

I currently serve in the capacity of Chief of the Division of Vascular Interventional Radiology, Department of Radiology at University of Texas Southwestern Medical Center, Dallas. I have been in this position since May 2013. In this capacity, I lead a group of 12 faculty members, 4 advanced practice providers and 3 fellows to provide specialty clinical care at University Hospitals and Parkland Hospital, teach trainees in the field of Radiology and Interventional Radiology, and conduct both clinical and basic science research at these institutions. In addition, I work closely with hospital management in advancing a collaborative atmosphere in providing adequate pre-procedure, intra-procedure and post-procedure care, in-patient care and outpatient services at both hospitals.

My clinical areas of interest focus on pulmonary vascular disease, venous thromboembolism, management of portal hypertension and trans-arterial therapies for hepatic malignancies. I am considered one of the leading clinicians and researchers in these fields. I have published more than 100 original papers, edited two text books and authored more than 50 book chapters. During these endeavors, I have collaborated with distinguished clinicians, researchers and scientists of various specialties to advance the science and clinical care. As an educator, I have held positions to lead training programs, teaching conferences for trainees in Radiology and Interventional Radiology. I take pride in educating future generations of clinicians with utmost focus on vascular diseases, vascular imaging and vascular interventions. My lectures and bedside teachings are well appreciated and I am honored with one of the prestigious awards for teaching – Dr. Athansoulis Award for Excellence in Teaching at Massachusetts General Hospital. In addition to regular didactic and case review sessions, I have given lectures at various national and international conferences and symposia.

Being in the forefront of Interventional Radiology, I have transformed the way this specialty is practiced at UT Southwestern. Given my strong background in imaging and clinical medicine, I have improved Interventional Radiology presence to provide outpatient and inpatient services for longitudinal patient care. I was instrumental in bringing varicose vein therapy program to UTSW. In addition, I have introduced intranodal lymphangiography, thoracic duct embolization, balloon occluded retrograde venous obliteration for gastric varices, thrombolysis for portomesenteric venous thrombosis, advanced techniques for removal of inferior vena cava filters and use of newly designed vascular plugs for pulmonary arteriovenous malformations. These additions have resulted in increased recognition of the specialty and more choices for patient care. I have fostered more collaboration with UTSW transplant team, hepatology team, and cancer center for better utilization of interventional radiology services. In addition, my active involvement and collaboration with pulmonary service resulted in well recognized service for Hereditary Hemorrhagic Telangiectasia patients. Currently, we are one of the largest HHT centers in the US. I have supported and improved clinical services in treating liver tumors through state of the art drug delivery methods and trans-arterially delivered radiation particles. My clinical services are well appreciated both in this institution and at my prior institution where I received “Outstanding Service Award” for my tenure at Massachusetts General Hospital.

Research is an integral part of our service. We are actively involved in both industry-sponsored and investigator-initiated clinical trials. I have received funding both from the industry and NIH for clinical research. As a division, we have supported young faculty members and residents in pursuing research in interventional radiology. We fostered more growth with Cancer Center and have at least four clinical trials that involve cancer patients. We are part of an NIH trial for mutation analysis of tumors.

I have worked closely with our department leadership team in bringing the Interventional Radiology residency program to the department. This provides a direct pathway for medical students in pursuing career in IR that focuses on training in both imaging and advanced clinical care. During this process I have worked closely with the Vascular Surgery division for identifying avenues for additional training for residents in their specialty.

As a leader in the field of interventional radiology, I serve on the editorial board of many journals both as a reviewer and editor. I work closely with leadership in the Society of Interventional Radiology and American College of Radiology in advancing clinical care through guidelines and setting trends in training future radiologists. I serve as Division Councilor for Membership Services within the Society of Interventional Radiology. Within the ACR, I chair the committee on Appropriateness Criteria for Vascular Imaging and work with a team of experts in authoring documents that will be part of clinical decision support at ACR in the future.